#### 04/02/2018 504848062

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4894799

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
HESAAM ESFANDYARPOUR	03/10/2014
KOSAR BAGHBANI PARIZI	03/18/2014
MARK F. OLDHAM	07/10/2013
ERIC S. NORDMAN	03/05/2014
RICHARD T. REEL	03/19/2014
SUSANNE BAUMHUETER	03/31/2014
CHERYL HEINER	04/10/2014
FRANK LEE	03/27/2014

### **RECEIVING PARTY DATA**

Name:	GENAPSYS, INC.		
Street Address:	200 CARDINAL WAY		
City:	REDWOOD CITY		
State/Country:	CALIFORNIA		
Postal Code:	94063		

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15896572

# **CORRESPONDENCE DATA**

(650)493-6811 Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 6504939300

Email: natalie.morgan@wsgr.com

WILSON SONSINI GOODRICH & ROSATI **Correspondent Name:** 

Address Line 1: 650 PAGE MILL ROAD

Address Line 4: PALO ALTO, CALIFORNIA 94304-1050

ATTORNEY DOCKET NUMBER:	42808-701.307
NAME OF SUBMITTER:	NATALIE MORGAN
SIGNATURE:	/NATALIE MORGAN/

**PATENT REEL: 045409 FRAME: 0309** 

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Total Attachments: 7
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PATENT REEL: 045409 FRAME: 0310

	PATENT ASSIGNMENT		Docket Number 42808-701.832	
WHEREAS, the undersigned:				
			_	
ESFANDYARPOUR,     Redwood City, CA	Hesaam 2. PARIZI, Kosar Bagh Redwood City, CA	bani 3. OLDHAM, Mark Emerald Hills, CA		
5. REEL, Richard T. Hayward, CA	6. BAUMHUETER, Su Redwood City, CA	sanne 7. HEINER, Cheryl La Honda, CA	8. LEE, Frank Irvine, CA	
(hereinafter "Inventor(s)),"	have invented certain new and useful imp	rovements in		
	SYSTEMS AND ME	THODS FOR GENETIC AND BIO	LOGIĆAL ANALYSIS	
	pplication serial number <u>14/119,859</u> was pplication serial number <u>PCT/US12/39880</u>	filed on <u>November 22, 2013</u> in the Un was filed on <u>May 29, 2012</u> in the U.S	nited States Patent and Trademark Office; B. Receiving Office of the Patent Cooperation Treaty;	
"Assignee"), is desirous of embodiments of the invent "Inventions"), and in and to any international convention	acquiring the entire right, title and interest ions, heretofore conceived, made or discoven any and all patents, inventor's certificates	in and to said Application(s), and the vered, whether jointly or severally, by a and other forms of protection thereon	Galveston Drive, Redwood City, CA 94063, (hereinafter inventions disclosed therein, and in and to all said Inventor(s) (hereinafter collectively referred to as a granted in the United States, foreign countries, or under on for the Protection of Industrial Property, The Patent	
NOW, THERE Assignee:	FORE, in consideration of good and valual	ole consideration acknowledged by sai	d Inventor(s) to have been received in full from said	
<ul><li>(b) in and to said Application, continuation, of the foregoing;</li><li>(e) in and to</li></ul>	ons, including the right to claim priority to or continuation-in-part of any of said Appl	and from said Application(s); (c) in a ication(s); (d) in and to said Patent(s) a newal or extension of any kind of any	attre right, title and interest (a) in and to said Inventions; and to each and every application that is a divisional, and each and every patent issuing or reissuing from any of of the foregoing; and (f) in and to each and every patent	
2. Said Inventor(s) hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any applications covering said Inventions; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions; and (f) for legal proceedings involving said Inventions and any applications therefor and any Patent(s) granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that reasonable expenses incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.				
3. The and shall be binding upon s	terms and covenants of this assignment sha aid Inventor(s), their respective heirs, lega	all inure to the benefit of said Assigned I representatives and assigns.	e, its successors, assigns and other legal representatives,	
4. Said or understanding in conflict	Inventor(s) hereby warrant, represent and therewith.	covenant that said Inventor(s) have no	t entered and will not enter into any assignment, contract,	
5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal representatives and assigns.				
6. This instrument will be interpreted and construed in accordance with the laws of the State of California, without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.				
IN WITNESS W	HEREOF, said Inventor(s) have executed	and delivered this instrument to said	Assignee as of the dates written below:	
Date: 3,10/14	Meluud Hesaam Esfandyarpour	Date: 3-18-14	Kosar Baghbani Parizi	
Date:	Mark F. Midhard	Date:	Eric S. Nordman	
Date: 3/19/14	Richard T. Reel	Date:	Susanne Baumhueter	
Date:	Cheryl Hainer	Date:	Frank I aa	

## **CONFIRMATORY ASSIGNMENT**

I, Mark Oldham, residing at 738 Glenmere Way, Emerald Hills, Ca 94062 United States of America, citizen of US (the "assignor"); do acknowledge that:

In accordance with the Consulting Agreement dated February 9, 2011 between ASSIGNOR and GENAPSYS INCORPORATED (the "assignee"), having a place of business at 640 Galveston Drive, Redwood City, CA 94063, my entire right, title and interest in the patent applications listed below (and expressly including the right to file U.S. and foreign applications under the provisions of any law, convention, or treaty, and the right to claim priority to such patent applications), was transferred to ASSIGNEE by virtue of said Agreement.

United States Provisional Application No. 61/491,081 filed May 27, 2011 entitled "METHODS AND SYSTEMS FOR NUCLEIC ACID SEQUENCING",

United States Provisional Application No. 61/565,651, filed December 1, 2011 entitled "GENIUS ELECTRONIC SEQUENCING TECHNOLOGIES AND METHODS THEREFOR".

United States Provisional Application No. 61/620,381, April 4, 2012 entitled "METHODS AND SYSTEMS FOR NUCLEIC ACID ANALYSIS",

PCT/US2011/054769 filed 4 October 2011 entitled "SYSTEMS AND METHODS FOR AUTOMATED REUSABLE PARALLEL BIOLOGICAL REACTIONS",

PCT/US2012/039880 filed May 29, 2012 entitled "SYSTEMS AND METHODS FOR GENETICS AND BIOLOGICAL ANALYSIS".

PCT/US2012/067645 filed December 3, 2012 entitled "SYSTEMS AND METHODS FOR HIGH EFFICIENCY ELECTRONIC SEQUENCING AND DETECTION".

United States Patent Application No. 13/397,581 filed February 15, 2012 entitled "METHODS AND SYSTEMS FOR ELECTRONIC SEQUENCING",

United States Patent Application No. 13/632,513 filed October 1, 2012 entitled "METHODS AND SYSTEMS FOR ELECTRONIC SEQUENCING",

All divisional, continuing, substitute, renewal, reissue applications for patent which have or shall be filed in the United States and foreign countries on any such applications; all original and reissued patents which have been or shall issue in the United States and all foreign countries on such patent applications;

I AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted to the Assignee;

MFO

PATENT REEL: 045409 FRAME: 0312 WARRANT AND COVENANT that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned.

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this confirmatory assignment, the undersigned will execute all faithful oaths, truthful declarations, assignments, powers of attorney, and other papers; communicate to the Assignee all facts known to the undersigned relating to such patent applications and the history thereof; and generally do everything possible for which the Assignee shall consider desirable for vesting title to such patent applications in the Assignee, and for securing, maintaining, and enforcing proper patent protection for such patent applications, provided Assignor shall not be compelled to take any action that is inconsistent with patent law or PTO policy and procedures;

TO BE BINDING on the heirs, assigns, representatives, and successors of the undersigned and extend to the successors, assigns, and nominees of the Assignee.

Signature:

7/10/2013

Name

Mark F. Oldham

1085838 v9/HN

		- - -			
	PATENT ASSIGNMEN	T ·	·	Docket Number 42808-701.832	
WHEREAS, the undersigned:					
ESFANDYARPOUR, Hesaam Redwood City, CA	2. PARIZI, Kosar Ba Redwood City, C		3. OLDHAM, Mark F. Emerald Hills, CA	4. NORDMAN, Eric S. Palo Alto, CA	
5. REEL, Richard T. Hayward, CA	6. BAUMHUETER, Redwood City, CA	Susanne A	7. HEINER, Cheryl La Honda, CA	8. LEE, Frank Irvine, CA	
(hereinafter "Inventor(s))," have inven	ted certain new and useful	improvements in			
· 	SYSTEMS AND N	1ETHODS FOR G	ENETIC AND BIOLOG	ICAL ANALYSIS	
[X] for which application s	erial number PCT/US12/39	1880 was filed on M	ay 29, 2012 in the 0.5. Re	States Patent and Trademark Office; ceiving Office of the Patent Cooperation Treaty;	
WHEREAS, GENAPSYS. INC., a cor "Assignce"), is desirous of acquiring t embodiments of the inventions, hereto "Inventions"), and in and to any and a any international convention, agreeme	poration of the State of <u>De</u> he entire right, title and inte fore conceived, made or di Il patents, inventor's certific int, protocol, or treaty, inclu- inafter "Patent(s)").	aware, having a pla rest in and to said A scovered, whether ju- sates and other form dding those filed und	ce of business at 640 Galv Application(s), and the inve- bintly or severally, by said as of protection thereon gra- der the Paris Convention for	eston Drive, Redwood City, CA 94063, (hereinatter entions disclosed therein, and in and to all Inventor(s) (hereinafter collectively referred to as inted in the United States, foreign countries, or under or the Protection of Industrial Property, The Patent	
NOW, THEREFORE, in c	onsideration of good and v	aluable consideratio	n acknowledged by said In	ventor(s) to have been received in full from said	
(b) in and to said Applications, includ substitution, continuation, or continua the foregoing; (e) in and to each and and application filed outside the Unite	Assignee:  1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said Inventions; (b) in and to said Applications, including the right to claim priority to and from said Application(s); (c) in and to each and every application that is a divisional, substitution, continuation, or continuation-in-part of any of said Application(s); (d) in and to said Patent(s) and each and every patent issuing or reissuing from any of the foregoing; (e) in and to each and every reissue, reexamination, renewal or extension of any kind of any of the foregoing; and (f) in and to each and every patent and application filed outside the United States and corresponding to any of the foregoing.				
and interest herein conveyed in the U Inventor(s) shall include prompt prod papers, and other assistance all to the conveyed; (b) for prosecuting any app covering said Inventions; (d) for film	nited States, foreign country uction of pertinent facts an extent deemed necessary o plications covering said Inv g and prosecuting application eedings involving said Inve	d documents, giving r desirable by said A centions; (c) for filin ons for reissuance o centions and any appl	of testimony, execution of assignee (a) for perfecting g and prosecuting substitute f any said Patent(s); (e) for ideations therefor and any Interests, public uses professional and the content of the second secon	id Assignee to enjoy to the fullest extent the right, title element, protocol, or treaty. Such cooperation by said of petitions, oaths, specifications, declarations or other in said Assignee the right, title and interest herein te, divisional, continuing or additional applications interference or other priority proceedings involving Patent(s) granted thereon, including without limitation occedings, infringement actions and court actions; pe paid for by said Assignee.	
3. The terms and and shall be binding upon said Inven	covenants of this assignme tor(s), their respective heirs	ent shall inure to the s, legal representativ	benefit of said Assignee, i es and assigns.	ts successors, assigns and other legal representatives,	
4. Said Inventor(	s) hereby warrant, represen	t and covenant that	said Inventor(s) have not e	intered and will not enter into any assignment, contract,	
	_	Patent(s) issuing in t gnee, or its successo	he United States, foreign cors and assigns, for the sole	ountries, or under any international convention, e use of said Assignee, its successors, legal	
6. This instrume: principles. If any provision of this is permitted by law. This instrument in	astrument is found to be ille hay be executed in counterp	parts, each of which	is deemed an original, but	ate of California, without regard to conflict of law Ill remain effective and enforceable to the greatest extent all of which together constitute one and the same	
IN WITNESS WHEREO	F, said Inventor(s) have ex	ecuted and delivered	d this instrument to said As	ssignee as of the dates written below:	
Date: Hesaar	n Esfandyarpour	,	Date:	Kosar Baghbani Parizi	
Date: Mark I	. Oldham		Date: Mar. 5, 2019	Eric S. Nordman	
Date:Richar	d T. Reel		Date:	Susanne Baumhueter	
Date:Cheryl	Heiner	A CONTRACTOR OF THE CONTRACTOR	Date:	Frank Lee	

REEL: 045409 FRAME: 0314

	PATENT ASSIGNMENT		Docket Number 42808-701.832	
WHEREAS, the undersigne	d:			
ESFANDYARPOUR, I Redwood City, CA	Jesaam 2. PARIZI, Kosar Baghi Redwood City, CA	oani 3. OLDHAM, Mark F. Emerald Hills, CA	4. NORDMAN, Eric S. Palo Alto, CA	
5. REEL, Richard T. Hayward, CA	6. BAUMHUETER, Sus Redwood City, CA	7. HEINER, Cheryl La Honda, CA	8. LEE, Frank Irvine, CA	
(hereinafter "Inventor(s)),"	have invented certain new and useful imp	rovements in		
	SVSTEMS AND MET	HODS FOR GENETIC AND BIOLO	DICAL ANIAL VOIC	
☑ for which an	plication serial number 14/119-859 was f			
for which ap	plication serial number PCT/US12/39880	was filed on May 29, 2012 in the U.S. R	eceiving Office of the Patent Cooperation Treaty;	
"Assignee"), is desirous of a embodiments of the invention "Inventions"), and in and to any international convention	equiring the entire right, title and interest ons, heretofore conceived, made or discov any and all patents, inventor's certificates	in and to said Application(s), and the inversed, whether jointly or severally, by said and other forms of protection thereon gr	veston Drive. Redwood City, CA 94063, (hereinafter rentions disclosed therein, and in and to all Inventor(s) (hereinafter collectively referred to as anted in the United States, foreign countries, or under or the Protection of Industrial Property, The Patent	
NOW, THEREF Assignee:	ORE, in consideration of good and valuab	le consideration acknowledged by said In	eventor(s) to have been received in full from said	
1. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said Inventions; (b) in and to said Applications, including the right to claim priority to and from said Application(s); (c) in and to each and every application that is a divisional, substitution, continuation, or continuation-in-part of any of said Application(s); (d) in and to said Patent(s) and each and every patent issuing or reissuing from any of the foregoing; (e) in and to each and every reissue, reexamination, renewal or extension of any kind of any of the foregoing; and (f) in and to each and every patent and application filed outside the United States and corresponding to any of the foregoing.				
Said Inventor(s) hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of pertinents, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any applications covering said Inventions; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; (d) for filing and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions; and (f) for legal proceedings involving said Inventions and any applications therefor and any Patent(s) granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that reasonable expenses incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.				
3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said inventor(s), their respective heirs, legal representatives and assigns.				
4. Said Inventor(s) hereby warrant, represent and covenant that said Inventor(s) have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.				
5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal representatives and assigns.				
principles. If any provision.	of this instrument is found to be illegal or	unenforceable, the other provisions shall	e of California, without regard to conflict of law remain effective and enforceable to the greatest extent Il of which together constitute one and the same	
IN WITNESS W	HEREOF, said Inventor(s) have executed	and delivered this instrument to said Ass	ignee as of the dates written below:	
Date:	Hesaam Esfandyarpour	Date:	Kosar Baghbani Parizi	
Date:	Mark F. Oldham	Date:	Eric S. Nosdman	
Date:		Date: 3)31/14	DA -	
	Richard T. Reel		Susanne Baumhueter	

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Cheryl Heiner

Page 1 of 1

PATENT REEL: 045409 FRAME: 0315

Frank Lee

	PATENT ASSIGNMENT		Docket Number 42808-701.832
WHEREAS, the undersigned:	en francisco de la composiçõe de la composição de la comp		<i>i</i>
ESFANDYARPOUR, Hesaam Redwood City, CA	PARIZI, Kosar Baghbani     Redwood City, CA	3. OLDHAM, Mark F. Emerald Hills, CA	4. NORDMAN, Eric S. Palo Alto, CA
5. REEL, Richard T. Hayward, CA	6. BAUMHUETER, Susanne Redwood City, CA	7. HEINER, Cheryl La Honda, CA	8. LEE, Frank Irvine, CA
(hereinafter "Inventor(s))," have inventor	ed certain new and useful improvements in	n	
	SYSTEMS AND METHODS FO	R GENETIC AND BIOLOG	ICAL ANALYSIS
for which application see	rial number <u>14/119,859</u> was filed on <u>Nov</u> rial number <u>PCT/US12/39880</u> was filed or	rember 22, 2013 in the United n May 29, 2012 in the U.S. Rec	States Patent and Trademark Office; ceiving Office of the Patent Cooperation Treaty;
WHEREAS, GENAPSYS. INC., a corp "Assignce"), is desirous of acquiring the embodiments of the inventions, heretofe "Inventions"), and in and to any and all-	oration of the State of <u>Delaware</u> , having a centire right, title and interest in and to sa ore conceived, made or discovered, wheth patents, inventor's certificates and other fit, protocol, or treaty, including those filed	place of business at 640 Galve id Application(s), and the inver- er jointly or severally, by said I	ston Drive, Redwood City, CA 94063, (horoingfler
NOW, THEREFORE, in cor Assignee:	sideration of good and valuable considera	ttion acknowledged by said Inv	entor(s) to have been received in full from said
(b) in and to said Applications, includin substitution, continuation, or continuation the foregoing; (e) in and to each and ev	g the right to claim priority to and from sa on-in-part of any of said Application(s): (c	id Application(s); (c) in and to l) in and to said Patent(s) and e ension of any kind of any of th	ight, title and interest (a) in and to said Inventions; each and every application that is a divisional, ach and every patent issuing or reissuing from any of e foregoing; and (f) in and to each and every patent
and interest herein conveyed in the Unit Inventor(s) shall include prompt produc papers, and other assistance all to the ex conveyed; (b) for prosecuting any applic covering said Inventions; (d) for filing a said Inventions; and (f) for legal proceed reissues and reexaminations, opposition	ed States, foreign countries, or under any tion of pertinent facts and documents, givitent deemed necessary or desirable by saidations covering said inventions; (c) for filling prosecuting applications for reissuance tings involving said inventions and any ar	international convention, agree ing of testimony, execution of p d Assignee (a) for perfecting in ling and prosecuting substitute, of any said Patent(s); (e) for in oplications therefor and any Patentiority contests, public use proce-	Assignee to enjoy to the fullest extent the right, title ment, protocol, or treaty. Such cooperation by said petitions, oaths, specifications, declarations or other said Assignee the right, title and interest herein divisional, continuing or additional applications atterference or other priority proceedings involving tent(s) granted thereon, including without limitation seedings, infringement actions and court actions; paid for by said Assignee.
The terms and cor and shall be binding upon said Inventor(	venants of this assignment shall inure to the shall inure to the shall represent at the sha	ne benefit of said Assignee, its ives and assigns.	successors, assigns and other legal representatives,
4. Said Inventor(s) be or understanding in conflict herewith.	ereby warrant, represent and covenant that	t said Inventor(s) have not ente	ered and will not enter into any assignment, contract,
<ol> <li>Said Inventor(s) hagreement, protocol, or treaty, be issued representatives and assigns.</li> </ol>	ereby request that any Patent(\$) issuing in in the name of the Assignee, or its succes	the United States, foreign coursors and assigns, for the sole us	ntries, or under any international convention, se of said Assignee, its successors, legal
principles. If any provision of this instru	iment is found to be illegal or unenforceal	ole, the other provisions shall re	of California, without regard to conflict of law emain effective and enforceable to the greatest extent of which together constitute one and the same
IN WITNESS WHEREOF, s	aid Inventor(s) have executed and delivered	ed this instrument to said Assig	nee as of the dates written below:
Date: Hesaam Es	fandyarpour	Date:	Kosar Baghbani Parizi
Date: Mark F. Ol	dham	Date:	Eric S. Nordman
Date:		Date:	
Date: 4/10/19 Richard F.	Reel		Susanne Baumhueter
Date: 7/10/19 Cheryl Hej	ner	Date:	Frank Lee

	PATENT ASSIGNMENT		Docket Number 42808-701.832	
WHEREAS, the undersigned:				
ESFANDYARPOUR, Hesa Redwood City, CA	am 2. PARIZI, Kosar Baghbani Redwood City, CA	3. OLDHAM, Mark F. Emerald Hills, CA	4. NORDMAN, Eric S. Palo Alto, CA	
5. REEL, Richard T. Hayward, CA	6. BAUMHUETER, Susanne Redwood City, CA	7. HEINER, Cheryl La Honda, CA	8. LEE, Frank Irvine, CA	
(hereinafter "Inventor(s))," have	e invented certain new and useful improvements in	n		
	SYSTEMS AND METHODS FO	R GENETIC AND BIOLOG	ICAL ANALYSIS	
for which applic for which applic	ation serial number <u>14/119.859</u> was filed on <u>Nov</u> ation serial number <u>PCT/US12/39880</u> was filed o	vember 22, 2013 in the United in <u>May 29, 2012</u> in the U.S. Re	States Patent and Trademark Office; ceiving Office of the Patent Cooperation Treaty;	
"Assignee"), is desirous of acquembodiments of the inventions, "Inventions"), and in and to any	iring the entire right, title and interest in and to sa heretofore conceived, made or discovered, wheth and all patents, inventor's certificates and other for preement, protocol, or treaty, including those filed	old Application(s), and the inve er jointly or severally, by said forms of protection thereon gran	Inventor(s) (hereinafter collectively referred to as	
NOW, THEREFORE	E, in consideration of good and valuable considera	ation acknowledged by said Inv	ventor(s) to have been received in full from said	
<ul><li>(b) in and to said Applications, substitution, continuation, or co the foregoing;</li><li>(e) in and to each</li></ul>	including the right to claim priority to and from sa ntinuation-in-part of any of said Application(s); (c	uid Application(s); (c) in and to i) in and to said Patent(s) and c tension of any kind of any of th	right, title and interest (a) in and to said Inventions; each and every application that is a divisional, each and every patent issuing or reissuing from any of the foregoing; and (f) in and to each and every patent	
2. Said Inventor(s) hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any applications covering said Inventions; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; and (f) for filing and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said Inventions; and (f) for legal proceedings involving said Inventions and any applications therefor and any Patent(s) granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that reasonable expenses incurred by said Inventor(s) in providing such cooperation shall be paid for by said Assignee.				
3. The terms and shall be binding upon said I	s and covenants of this assignment shall inure to the inventor(s), their respective heirs, legal representations.	he benefit of said Assignee, its tives and assigns.	successors, assigns and other legal representatives,	
4. Said Inventor(s) hereby warrant, represent and covenant that said Inventor(s) have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.				
5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal representatives and assigns.				
6. This instrument will be interpreted and construed in accordance with the laws of the State of California, without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.				
IN WITNESS WHE	REOF, said Inventor(s) have executed and deliver	ed this instrument to said Assig	gnee as of the dates written below:	
Date: He	saam Esfandyarpour	Date:	Kosar Baghbani Parizi	
Date: Ma	rk F. Oldham	Date:	Eric S. Nordman	
Date:Ric	chard T. Reel	Date:	Susanne Baumhueter	
Date:	eryl Heiner	Date: 3-27-19	Frank Lec	

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